

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F21K2/00 C09K11/06 C09K11/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F21K C09K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | DE 197 28 449 C (FRAUNHOFER GES FORSCHUNG)<br>19 November 1998 (1998-11-19)  | 1                     |
| Y          | page 2, lines 34-54; claims 1-13<br>page 3, lines 14-26 - lines 36-50<br>page 3, line 62 - page 4, line 9  | 2-10                  |
| Y          | KIPSHIDZE G ET AL: "DEEP ULTRAVIOLET<br>ALGAINN-BASED LIGHT-EMITTING DIODES ON<br>SI(111) AND SAPPHIRE"<br>PHYSICA STATUS SOLIDI (A). APPLIED<br>RESEARCH, BERLIN, DE,<br>vol. 192, no. 2,<br>15 March 2002 (2002-03-15), pages 286-291,<br>XP001179920<br>ISSN: 0031-8965<br>the whole document | 7                     |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

10 September 2004

Date of mailing of the international search report

17/09/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Wengeler, H

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| Y          | US 4 382 272 A (PAPE HEINZ ET AL)<br>3 May 1983 (1983-05-03)<br>column 1, lines 56-60; claims 1-14; figure<br>2<br>column 5, lines 36-43<br>-----  | 2-6,8-10              |
| Y          | EP 0 706 006 A (ROEHM GMBH)<br>10 April 1996 (1996-04-10)<br>page 2, lines 41-50; claims 1-4<br>page 3, lines 10-42<br>page 4, lines 1-11<br>----- | 2-6,8-10              |

Information on patent family members

ional Application No

IB2004/050564

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---|---------------------|----------------------------|---------------------|
| DE 19728449                               | C | 19-11-1998          | DE 19728449 C1             | 19-11-1998          |
| US 4382272                                | A | 03-05-1983          | DE 2946191 A1              | 21-05-1981          |
|   |   |                     | EP 0029199 A1              | 27-05-1981          |
|   |   |                     | JP 56087078 A              | 15-07-1981          |
| EP 0706006                                | A | 10-04-1996          | DE 9415950 U1              | 17-11-1994          |
|   |   |                     | EP 0706006 A2              | 10-04-1996          |
|   |   |                     | JP 8211838 A               | 20-08-1996          |